

(54) MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE

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PURPOSE: To improve the property of crystal by irradiation of laser light of a specified wave length to a semiconductor layer of a insulated substrate.

CONSTITUTION: Laser light issued from a laser light source is focused on a wafer surface through a lens 4 and in the path of light, light is contrived to refract by a prism 3 and irradiates a wafer surface vertically. Light is made to be utilized at an surface of the wafer by the prism 3, 3' being scanned along the wafer's surface. In this case the utilized wave length of laser lies in the range between wave length staggering about $1\mu\text{m}$ and approximately $10\mu\text{m}$, and wafer is SOS wafer which consists of an Si layer and a sapphire substrate 2. Irradiation of laser light may be done in any period of manufacture such as at early period of semiconductor device manufacture, between processes and at last period of manufacture. By this method the Si layer 1 is selectively heated, and the property of crystal is improved without any thermo-chemical reaction in the insulated substrate.

